OFFICE OF TRAINING
BULLETIN

CS–56

Jan.–Feb. 1961

C L A N D E S T I N E   S E R V I C E S   E D I T I O N

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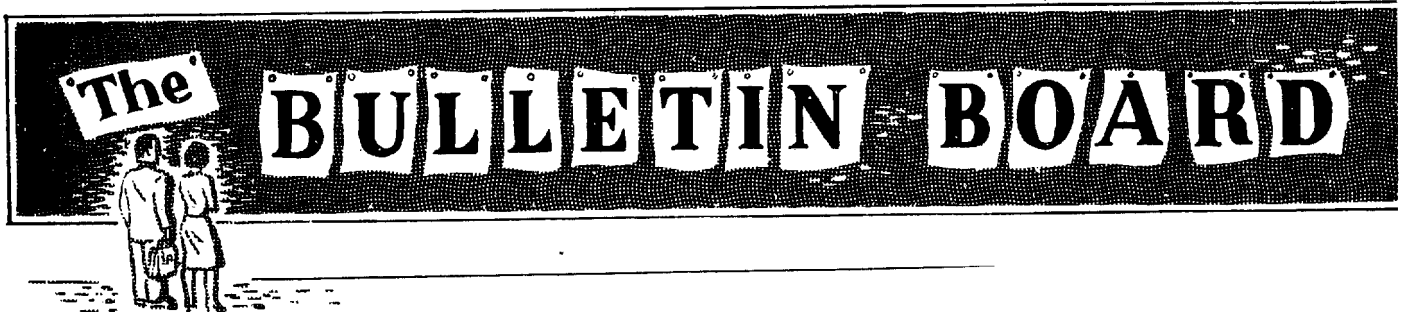
INSTRUCTOR RECEIVES STUDIES IN INTELLIGENCE AWARD

On 14 December, the annual Studies in Intelligence Award of $500, offered for the first time in 1960, was presented by the Director to an instructor currently assigned to the Office of Training for the most significant contribution to the literature of intelligence during the year. It was earned by the article, "A Fresh Look at Collection Requirements," that appeared in the Fall issue of the Studies under the

25X1A9a   pen name ███████████. This article, an earnest and penetrating examination of the problem of establishing collection priorities, was selected for its constructive thinking over a number of others that may have aroused wider general interest.

The author has been associated with the Agency and its predecessor organization since 1944, serving as a reports officer, as Chief of Requirements Branch, and as Chief of Station overseas.

INTELLIGENCE BRIEFING COURSE OFFERED FOR FIRST TIME

A 24-hour Intelligence Briefing Course was given by the Intelligence School during December and January. This new Instruction provides training and practice in the oral presentation of information related to intelligence production, intelligence operations, and intelligence support activities. A review of the fundamentals of effective speaking is included, in addition to a brief study of audience analysis, instruction in the substantive organization of briefings, guidance in the preparation and use of visual aids, and practice in actual presentation. Each student gives six briefings during the course and speaking assignments are made within the field of a student's major activity and interest. Briefings are tailored to simulated situations and critiques by the instructor and by members of the class.

INTELLIGENCE BRIEFING COURSE OFFERED FOR FIRST TIME   (cont'd)

The Effective Speaking Course given by ███████████████ is not   25X1A9a
duplicated or replaced by this course. Both may be taken without
regard to sequence. Future runnings of the Intelligence Briefing
Course will be announced.

REPORT ON SENIOR MANAGEMENT SEMINAR

The two weeks of October 9 - 23 will be long remembered by thirty-
five of the Agency's key personnel. Having taken up temporary resi-
25X1A6a   dence ███████████, these men participated in the first Senior
Management Seminar sponsored by the Office of Training and conducted
25X1A   ██████████████████████████████████ of the Graduate School of Business
████████████████. The Seminar, using the case
method exclusively, was an especially designed version of the Admin-
25X1A   istrative Practices course of the ████████████████████████ 25X1A
███████.

Two of the participants represented the Office of the DCI, and the
others were nominated in equal number by each of the Deputy Directors.
The grade levels ranged from GS-15 to GS-18 inclusive, with about
half of the group in the super-grade category.

Highlights of this challenging, productive, and highly enjoyable ex-
perience included visits by Mr. Dulles and General Cabell, both of
whom have given strong support to the inauguration and continued de-
velopment of the Seminar.

All of the participants have enthusiastically endorsed the Seminar,
and the Deputy Director (Support) has approved the plan of the Office
of Training to continue to sponsor the effort. ████████████████ 25X1A
believes that other responsibilities will limit his work with us to
only two Seminars each year.

Present plans call for the second Senior Management Seminar to be
held toward the end of March or in early April of this year.

U.S.S.R. - BASIC COUNTRY SURVEY SCHEDULED TO BEGIN IN MARCH

The School of International Communism/TR will conduct a 60-hour Basic
Country Survey on the U.S.S.R. from 20 March through 5 May. Classes
will meet on Monday, Wednesday, and Friday from 8:30 to noon in
Room 2241 R&S.

The course is for employees whose duties require a comprehensive
knowledge of the U.S.S.R. Coverage includes the historical devel-
opment of Czarist Russia and the U.S.S.R., the country's geography

and natural resources, the role of the Communist Party, structure
and activities of the Soviet Government, its military, economic, and
scientific capabilities, nationalities, and the Soviet foreign policy.
Current practices and problems of the Soviet Union, particularly Com-
munist doctrine, are emphasized.

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Lectures are presented by the staff of SIC and by specialists from other
offices in the Agency. Further information can be obtained from the

25X1A9a   Chief Instructor of the course, ███████████████, on extension ██████ Re-
gistration closes on 15 March.

COMPTROLLER COURSES SCHEDULED

Two courses will be offered by the Office of the Comptroller during
March and April. A <u>Survey of Budgeting Course</u> (formerly titled <u>Prin-</u>
<u>ciples</u> and <u>Processes</u> of <u>Government Budgeting</u>) will be conducted from
21 March through 21 April, and the twenty-hour <u>Cost Principles Course</u>
is scheduled for 25 April through 26 May. Both courses will meet from
1300 to 1500 hours on Tuesdays and Fridays in Room 2103 Alcott Hall.

The three major budgetary processes--preparation, approval, and exe-
cution--are covered in <u>Survey of Budgeting</u>. Basic principles of the
current Government budgetary system, executive-legislative relation-
ships, and political-economic relationships are also included. Special
emphasis is placed on applications and adaptations to the Agency. This
course is open to staff employees who need a non-technical survey of
budgeting: it is especially helpful to administrative officers and
program planners.

The <u>Cost Principles Course</u> is intended primarily for operational and
managerial executives. Since cost-based budgets are now used in the
Agency, this course demonstrates how the tools in the Financial Manage-
ment Program can aid internal managers in doing more efficient and
economical jobs. Factors of cost finding, cost consciousness, and
cost accounting are reviewed and techniques of statistics, accounting,
and auditing for cost purposes are discussed. Students may submit
specific problems in the seminars.

To obtain further information on these courses, call ███████████, 25X1A9a
Comptroller Training Officer, on extension ██████   25X1A

INTELLIGENCE RESEARCH (TECHNIQUES) COURSE CANCELLED

The <u>Intelligence Research (Techniques) Course</u>, scheduled to run from
6 through 21 March for all offices of the Agency, has been canceled.
However, those scheduled for OSI and ORR in the <u>Schedule of Courses-</u>
<u>1961</u> remain unchanged.

PRINTING SERVICES SEMINAR PLANNED FOR MARCH

On 7, 8 and 9 March the Printing Services Division of the Office of Logistics will conduct its fourth Printing Services Seminar. The first and third day sessions, presented from 0900 to 1230 hours in ████████████ will consist of lectures and illustrated talks on printing processes. On the second day students will tour PSD's printing plant.

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The Seminar is for individuals who are responsible for preparing, ordering or authorizing printing. It is also helpful instruction for persons who have a need of the services of PSD and for those who conduct liaison on printing matters.

Registration is done directly by the Training Officer/OL. Any inquiries on the seminar should be directed to ████████, TO/OL, on extension████   25X1A9a

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TWO EXHIBITS SCHEDULED

Another Intelligence Products Exhibit will be held on Thursday, 9 March, from 9:45 to 12:00 in the R&S Auditorium. This one is being conducted in conjunction with the Intelligence Orientation Course which runs from 6 through 24 March. The Chief of the Intelligence Orientation Faculty will also invite representatives of the USIB to attend.

A Support Exhibit is also scheduled for March. This will be presented on Thursday, 2 March, from 1:30 to 3 pm in the R&S Auditorium. It is being presented as part of the DDS Orientation in the Junior Officer Training Program.

Agency employees are encouraged to see these exhibits. No formal registration is required.

LOGISTICS SUPPORT COURSE TO BE GIVEN IN APRIL

Logistics Support Course, No. 22, has been scheduled from 24 April through 2 June. Instruction is divided into two phases. Phase I will run 4 weeks at Hqs and Phase II, two weeks ████████. Students may take only one phase, but should discuss such a plan with ████████, the TO/OL, who is also responsible for registration. His extension████   25X1A6a

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Phase I consists of lectures, discussions, and case-problems in Agency supply, procurement, transportation, real estate, and organization

and function of printing services. Logistics planning, Type II station accountability, and responsibilities of a logistics officer are also covered. <u>Phase II</u> is principally student participation in logistics field activity. Financial Property Accounting, stock control, M/R accounts, and field supply problems are covered in addition to specific aspects of logistics support of covert operations, air and maritime operations, and ordnance supply.

FOREIGN LANGUAGE NEWSREELS

The Language School plans to continue showing its series of newsreels in foreign languages through April. The schedule is:

Arlington Towers - Room 2232

Tuesday	1200	Russian
	1230	Italian
Thursday	1200	French
	1230	Spanish
	1300	German

"I" Building Lab - Room 2132

Tuesday	1200	French
	1230	Spanish
	1300	German
Thursday	1200	Russian
	1230	Italian

INSTRUCTOR TRAINING AVAILABLE

As a reminder to those offices conducting formal or on-the-job training programs, the Office of Training offers an Instructor Training Course which can be tailored to meet specific problems in techniques of teaching. The course can be conducted wherever it best suits the requesting office. In addition to the ITC, OTR provides special Instructor Workshops. These run for several hours and cover such things as new techniques in audio-visual education, course planning, improvement in presentation of lectures, use of such instructional techniques as role-playing and small study ("buzz") or discussion groups, improvement of discussions, and techniques in evaluating a student's progress and achievement. If instructors need assistance only in a specific training technique or in others that are not mentioned here, a workshop can also be arranged. All such arrangements

INSTRUCTOR TRAINING AVAILABLE   (cont'd)   .

25X1A9a   are made with ███████████ Chief Instructor, extension ████ An   25X1A
             Instructor Training Course will be conducted in February for the
             Records Management Staff and another will be given in April for the
             Office of Communications.

INTELLIGENCE REVIEW COURSE PLANNED FOR APRIL

The Intelligence School has scheduled its second Intelligence Review
Course for the two weeks of 3 to 14 April. This running will be
full-time and will be given in the R&S Auditorium. Registration
closes on 27 March.

Intelligence Review offers an opportunity for experienced personnel
to re-examine the current status of the intelligence profession and
to discuss organizational changes and relationships affecting their
duties and responsibilities to the Agency. Intelligence objectives
and requirements, the current status of the intelligence process, the
development and functioning of the intelligence community, and cur-
rent problems of coordination are explained.

We want to remind those who plan to attend one of the senior officer
courses, that is, the National War College, Industrial College of
the Armed Forces, Army War College, Air War College, Naval War College,
Armed Forces Staff College, and Dept. of State's Senior Seminar in
Foreign Policy, that completion of the Intelligence Review (or the
Clandestine Services Review) has been recommended as a preliminary
to attendance.

                                                                          25X1A

TAPED REPRODUCTIONS OF LANGUAGE RECORDS AVAILABLE

███
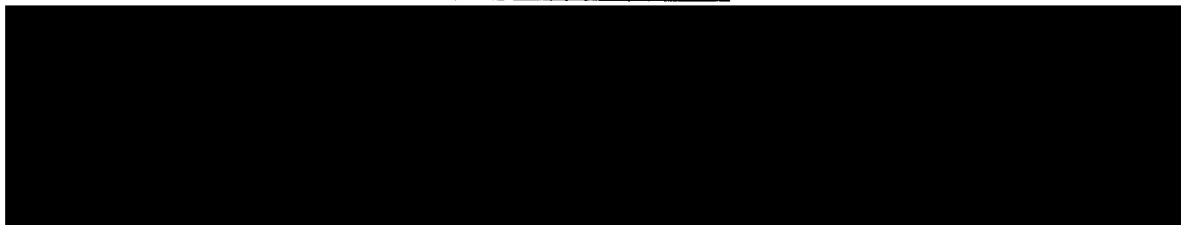
At the present time the German, French, and Spanish tapes are avail-
able, and others will be stocked as soon as LAS can complete them.
Arrangements to borrow tapes (and the accompanying manuals) are made
with the LAS Library, extension ████ located in 2209 Arl. Towers.   25X1A

SECRET
CIA INTERNAL USE ONLY

AMERICANS ABROAD ORIENTATION - FREE EUROPE

25X1A

The first day's coverage is on the entire region of destination--
Free Europe; then one or two follow-up days are set aside for treat-
ment of the specific country, within the region, to which the individual
has been assigned.

We remind employees that area briefings for them and their adult de-
pendents are scheduled by special arrangment between Training Officers
and the Area Training Staff/LAS, extension ███   **25X1A**

When an orientation is arranged, the Registrar notifies other Agency
components of the scheduled date so that these offices can avail them-
selves of the instruction. Form 73, the "Green Sheet", is used for
enrollment of an employee and for dependents, an original and four copies
of a memorandum of request are forwarded to the Registrar, 2026 Barton
Hall.

CLERICAL TESTING

The next Clerical Skills Qualification Tests for employees who have
to meet the Agency's requirements in shorthand and typing are sched-
uled to be given in Room 508, 1016 16th Street on 13 March, 27 March,
17 April and 1 May. Typing is at 1:15 p.m. and shorthand is at
2:00 p.m.

Supervisors or Placement Officers can register their employees with
the Clerical Training Faculty directly on extension ███ A report   **25X1A**
of the results of the tests is forwarded by Chief/CT/TR to the em-
ployee's Placement Officer. Employees who do not meet the Agency's
standards must wait at least five weeks before they are eligible to
be retested.

TITLE CHANGE

Intelligence Research-Maps has been re-titled Intelligence Research-
Maps & Photo Reading. Please make this change particularly in your
Schedule of Courses - 1961, pg 3.

CHANGE IN DATES OF WRITING WORKSHOPS

The next Intermediate Writing Workshops will be conducted from 6 through 30 March, and 8 May through 1 June, and the starting date for the Advanced Writing Workshop for DD/S has been changed from 27 March to 3 April. The pre-test for the May Intermediate Work-shop will be given on 20 March at 1:00 p.m. in Room 1331, R&S Bldg. No pre-test is required for the DD/S course.

REGISTRAR STAFF NOW IN BARTON HALL

The offices of the Registrar/TR are now in Barton Hall. Room num-bers and extensions are: 25X1A

Registrar
Deputy Registrar
External Training Branch
Admissions and Information
    Branch
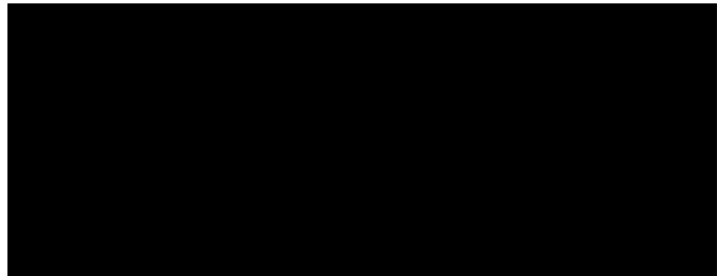
BASIC COURSES RESUMED IN VLTP

The Language and Area School is rescheduling out-of-hours elementary courses in French, German, Italian and Spanish, on a restricted basis, for the Spring-Summer Semester of the VLTP, beginning on 6 March. Qualifications for acceptance and approval of applications for French, German, Italian and Spanish 101 or French and Spanish 102 are in strict 25X1A conformity with CIA Regulation ███████████ Language Development Pro-gram, as revised on 5 May 1960. The FLATB (Foreign Language Aptitude Test) is required of all new registrants.

Qualified candidates are defined as those "certified by Heads of Career Services, or Operating Officials, as determined by each Deputy Director concerned" and whose training is considered "as being potentially use-ful to the Agency." This should be construed as meaning that voluntary training may give an individual a start in his language training if it is carefully planned as part of his career. It cannot replace directed training designed to bring an individual to an operationally useful pro-ficiency in a given language. For long-range career planning a judi-cious combination of out-of-hours courses with more intensive directed training is recommended.

PROGRAMMED LEARNING: ANSWER TO THE CROWDED CLASSROOM?

BY

25X1A9a   OFFICE OF TRAINING

In the fall of 1959, thirty-four eighth-grade students in the public school system of Roanoke, Virginia, began the study of algebra in quite a different way from all other students studying algebra in the Roanoke public schools--or anywhere else in the world, for that matter. They were the first public school class to use a new method of instruction called "programmed learning." They had no textbook and no homework. The teacher came to class regularly, but served only to keep attendance and help the students with their novel equipment. The results were startling. Instead of requiring the normal period of one year, all of the students completed ninth-grade algebra by the end of the first semester. Many finished long before this.

These thirty-four children were selected from an original population of 180 eight-grade students from which the top-third in mathematical aptitude had already been withdrawn. Yet almost half of these lower-aptitude children managed to exceed the national average score on the nationwide examination that was used as a measure of achievement at the end of the course. When it is remembered that all of this was accomplished by eighth-grade students, working without the help of a teacher and without homework, and in half of the time normally required, it is no wonder that these results cause considerable excitement among professional educators. It is also no wonder that it attracted the interest of Encyclopaedia Britannica Films which since last summer has poured a quarter of a million dollars into a large-scale programming effort now under way at Hollins College near Roanoke. With this strong support, Dr. Allen D. Calvin, Acting Head of the Psychology Department at Hollins College and prime mover in last year's algebra experiment, called together some of the outstanding mathematical talent in the United States and programmed seven mathematical courses which are now being tried out on about 10,000 high school students in dozens of school systems throughout the country. These range in subject matter from first-year high school algebra through intermediate calculus. Also in various stages of preparation at Hollins are programmed courses in descriptive statistics, finite math, modern algebra, and courses in biology, physics, chemistry, four foreign languages, and various elementary school subjects. Dr. Calvin expects that the first of these programs will be on the market by the fall of 1961. And all this impressive increase in programming activity at Hollins began less than a year ago!

The Hollins College experiment is only one among several examples that may be chosen to illustrate the interest which is burgeoning nowadays in programmed learning. The rapid increase in the number of research projects concerned with this subject is another example of gaining interest. Another indication of an increasing interest in programmed learning can be

found in the number of firms that are now publishing in this field. I have already mentioned Encyclopaedia Britannica Films, which intends to publish the programs being produced at Hollins College. But a partial list of publishers who have already marketed teaching programs could include a dozen others. Among these are Doubleday, General Atronics, Hamilton Research Associates, Inc., Harcourt Brace and Co., National Teaching Machines Inc., and U.S. Industries. Dr. B. F. Skinner, professor of psychology at Harvard University and the prime mover behind the current upsurge of interest in programmed learning, has been teaching a programmed psychology course at the University since the fall of 1957. And as another isolated example, the US Navy has been using a punchboard device in its training programs since World War II. In 1958 some 1200 of these devices were sent to the fleet, the manufacturer having been unable to fulfill the Navy's original request for 15,000.

"What is programmed learning?" Basically there are two kinds of programs: the linear program and the branching program. The linear program is a series of questions, each based on previous questions. The branch program, however, is one in which a student is led off the main track, if he gives a wrong answer to a question, and relearns material before going ahead. Both types of programming have four basic characteristics. The most important of these is that each is composed of small, carefully planned steps. The programmer builds toward the kind of behavior that he wants his student to acquire by starting with what the student already knows or can do and adding to this knowledge or skill bit by bit, allowing plenty of time for review and for relating the new bits to the old. This is the most important characteristic of programmed learning because this is the most significant way in which programmed learning differs from conventional teaching methods. It is designed not only to tell the student what to learn, but how he shall learn it. The second characteristic of programmed learning is that it forces the student to be continuously active. These many small steps can be thought of as many small questions or problems to which the student must respond. In contrast to the lecture situation, for example, the student must write, or at least press a button, or the presentation stops. The third characteristic of programmed learning is that it immediately corrects errors. No time is allowed for him to labor under misapprehensions. The fourth characteristic of programmed learning is that it allows the student to go as slowly or quickly as he likes.

The process of programming is worth looking at in more detail, not only because it is so characteristic of this new method of learning, but also because it is very important for anyone considering the use of this method to understand why it is such a time consuming and costly process. The plain geometry course developed at Hollins College, for example, is more than 1400 pages and 11,000 frames in length. When you realize that it takes an hour of a professional person's time to get only one or two frames ready for the printer, you are better prepared for the staggering prices that programmers must charge to prepare course materials.

Why does it take such a long time? One way to get an understanding of this is to examine the way the programming has to be done. Dr. Arthur Lumsdaine says that first, the desired behavior must be specified. The programmer must state exactly what he wants his student to be able to do at the end of the course. He may want him to be able to describe the major functions of the various components of the Agency, to do intelligence research, to present a briefing on an intelligence subject, or to write an observational report. Second, he has to identify elements of behavior. This is often a very large job because it is at this stage that the programmer must face up to the problem of just how he is going to lead the student from whatever level of achievement he assumes he has at the beginning of the course to a final achievement of course objectives. This requires inventorying not only all of the small parts of which the final performance is to be composed but also all of the behavioral steps through which he will have to lead the student to this final accomplishment. Third, the programmer has to identify relationships among elements. At this stage he actually arranges materials in sequence, making sure that the student has all the information he needs to make each succeeding step. Fourth, ways to elicit behavior in context must be established. The programmer must prompt the student so that he can make correct responses, even from the very beginning. Choosing material that will be appropriate to the context and to the student's background of experience is more an art than a science. But as it may be imagined, it is both a time-consuming and challenging job.

As a fifth step in programming, it is necessary to write a program. The programmer bases this on the work that he has done so far. His objective is to progress slowly enough so that the student will present the right answers about 90 or 95 per cent of the time. His sixth step is to test and revise the program. The programmer now tries out his program with typical students, making sure that the student records every response. Usually the program does not work very well the first time. One remarkable advantage of this method over others, however, is that it provides the programmer with the basis for systematically improving his course. Many such revisions may have to be made before the program is ready for a field test. The Spanish program that is soon to be published by Encyclopaedia Britannica Films, for example, went through 15 such revisions.

The final steps require organizing the program into units. At this point the program may be broken into several units to allow students with varying backgrounds to go immediately to the areas in which they need help. These units correspond roughly to the chapters in a textbook. Then machine requirements have to be prepared. At this point it may be decided that a machine could be useful in presenting the program to the student. If so, machine requirements must now be prepared and if a machine suitable for the purpose is not already on the market, such a machine must be designed and built. Lastly, the format of the program has to be recast for machine use. This is merely the mechanical step of making sure that the program will fit the machine to be used in presenting it to the student.

Since machines persist in intruding themselves into this presentation of programmed learning, it is quite clear that they have a rightful place. My concern is that there is realization that programmed learning is the dog and teaching machines are the tail, and not vice versa. It just happens that there are more teaching machines on the market nowadays than there are programs. But this should not be interpreted to mean that teaching machines are more important than the programs. The fascination of gadgetry associated with this new method has been hard to resist and there are now teaching machines on the market which range in cost from under $10 to nearly $5000. They are equipped with levers, wheels, buttons, flashing lights, and seem to have all the fascination of a pinball machine. But the fact remains that they are not an essential part of programmed learning. One major function of teaching machines is to control the presentation of the program. They become important when the students are unable or unwilling to control this process themselves. Sometimes students are unable to do what the machine must then do for them. Three- and four-year children, for example, cannot be trusted to turn the pages of a book but can quickly learn to press buttons on a machine. Sometimes students are unwilling to follow directions. Grade school children, for example, may peek ahead. But such "cheating" disappears as soon as the student realizes that he is only cheating himslef. Another major function of the teaching machine is to keep a record of how the student behaves. The student may have to press a button, for example, before the machine will advance, and in this way the machine provides the programmer a complete record of every student choice. This record-keeping feature can be valuable in the early stages of revising a program. (At this point in the presentation ███████ showed slides of the various teaching machines, ranging from the Videosonic and Autotutor, both complicated and expensive, to such simplified devices as the punchboard and the Chemo-card.)

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Despite all of the apparent enthusiasm for programmed learning, it is still very appropriate to raise the questions "Just how effective is it?" and "Even if it is better, is it worth all of the extra effort it seems to require?" By all odds the most effective study which I know of in the validity of programmed learning was carried out last spring by the American Institute for Research. This group programmed six weeks of high school physics comprising two weeks of optical reflection, two weeks of optical refraction, and two weeks of static electricity. About 625 students took part in this experiment involving 17 different schools in the Pittsburgh area. Essentially, the study was designed to answer two questions: "Would program materials, added to the conventional instruction which the students were already receiving, make a significant contribution?". To answer the first question, 15 physics classes were provided with a full complement of conventional instruction, including lectures by the instructor, classroom discussion, homework, and laboratory work. In addition, all of these classes saw carefully-developed televised lectures which have been a regular feature of instruction in Pittsburgh high school physics classes for several years. Half of the students, however, were given programmed materials covering most but not all of the content of the six weeks of instruction.

An analysis of the results showed a significant difference in favor of the students who had the programmed materials. To answer the second question, all of the students in 10 other classes were given programmed materials but some of them in addition were provided the conventional lectures with class discussion, textbook, and homework. The results were really startling. There was no significant difference between the achievement level of the two groups. Considering the large numbers of students involved and the careful design of the experiment, it is difficult to avoid concluding that programmed materials are potentially of great significance to the field of education. It is particularly humbling to consider the apparent fact that six weeks of lectures, discussion, and homework added little, if anything to the students' understanding of course materials.

There is much more evidence of a less formal sort. Dr. Skinner's psychology course, for example, now covers far more material than it did four years ago, and whereas it used to be considered moderately tough, it is now thought by the students to be too easy. At Hamilton College in Clinton, New York, programmed learning has cut a three-hour-a-week logic course to two hours, while at the same time increasing the amount of material covered. In addition, average grades have gone up from 63 to 86. Failure, normally the experience for 10 per cent of the class, has been eliminated. In New York City the Director of the Center for Programmed Instruction, Dr. Komoski, reported that 74 of his students completed in two weeks a programmed algebra course that, when taught by conventional classroom methods, requires more than two months. Then finally, at Earlham College in Richmond, Indiana, undergraduates who are starting to learn Russian are now expected to take two basic years in one. They begin with programmed texts and a tape-recorded program which allows them to practice converstaion. When they go to their first class meeting, part-way through the year, they have already mastered the new alphabet, basic grammar, a sizable vocabulary, and have some conversational skill.

Programmed learning is in the very early stages of development. The few programs that are now available on the market are being examined with considerable interest. Just how good are they: will they really cut learning time in half? How long would it take us to develop our own programs: would the results be worth it in terms of the cost? Even after he has accepted the idea that programs can greatly stimulate learning, the harried training director or professional educator finds himself wrestling with a new order of problems, problems concerning a method which is strangely if attractively new. Can anything be said by way of comparing the disadvantages with the advantages of programmed learning that would justify putting hard cash behind an experiment with this new method? Yes, I think there is. After careful thought about the disadvantages and the advantages of this method, I find that the disadvantages are few and decreasing, whereas the advantages are many and considerable.

There are two principal disadvantages of programmed learning. The first is that there are few published programs and not all of these are high quality.

The importance of this disadvantage will diminish, of course, as more and more programs are put on the market. Without **programs** we must develop our own. This brings us to the second and by far more important disadvantage; namely, that developing our own programs would be very costly. The Hollins College group for example, estimates that it would cost about $30,000 to produce the equivalent of a one-year course in high school algebra. Although this is **an impressive figure, it is** considered much too low by the American Institute for Research which would estimate the cost at more nearly $75,000. Still reeling from figures such as this, a training director must face the fact that he must produce multiple copies of thousands of pages of pro-grammed material at a cost of many more thousands of dollars. When **considered** against the alternative of buying textbooks and hiring an instructor, the cost of developing and using programmed materials might seem ridiculously high. When such costs are distributed over many thousands of students, however, or when the need for training efficiency is sufficiently great, investments of this size need not be prohibitive. An encouraging fact is that despite these apparently awesome costs, the development of programs is being vigorously pursued in several centers throughout the country. Dozens of companies have invested millions of dollars in this new approach to the solution of training problems. The reasons are not hard to find, and they are very substantial ones. The new method offers advantages not only to the student but also to the instructor. It offers the student all the time that he needs to learn. The full impact of this advantage can only be realized when it is understood that there seems to be very little relationship be-tween the time that a student requires to complete a course of programmed materials and the level of achievement which he is able to attain. In short, it appears that a well-developed program can teach almost anyone who has the basic requirements to enter the course. A related advantage of the new method for the student is that it allows him to go as fast as he can. Thus an apt student could master material in a fraction of the time that would be re-quired for him to learn it in the usual way. Still another advantage is that programmed materials greatly reduce the student's fear of failure. With this approach the student has all of the information that he needs laid out explicitly before him to study and master at his leisure. Gone is the danger that he will be asked on an examination any question for which he cannot be fully prepared. Another advantage closely related to this one is that the method helps build self-confidence. If the student has moved step by step through every phase of the course and has practiced as he goes along, he can hardly avoid developing a feeling of assurance in his mastery of the material. Perhaps the most important advantage is that programmed materials keep the student constantly informed on how well he is doing. As psychological experiments have repeatedly shown, this greatly improves the efficiency of learning.

Aside from these advantages for the student, programmed learning also con-tains significant advantages to the instructor. The instructor who uses programmed materials can safely assume that his students will attain a good grasp of the basics. No longer will he have any failures. Again, by

providing an efficient means for instructing students in essentials, the
method will allow the instructor to spend more time working with individ-
ual students—-counseling, tutoring, and encouraging each. Another point
to consider is the advantage for the instructor of knowing in advance
the difficulties his class is facing. Yet an analysis of the records
kept by the students while working on their programs would provide him
with just this information, and this information in turn would allow him
to spend his time where it is most needed. Still another advantage of
programmed instruction for the instructor is that it frees him from many
administrative chores. No longer is it necessary for him to test periodi-
cally for achievement because the student's record of performance keeps him
automatically informed on how well he is doing. And, as an important
final advantage, it may be mentioned that programmed learning provides the
instructor, for the first time in history, with a sound basis for improving
his training. Any ambiguities or difficulties will promptly show up in
accumulating student errors and the program can be changed for the better.
Considered over a period of years, this last advantage may prove to be
the most significant one of all.

Perhaps some comment should be made about possible applications for pro-
grammed learning to training problems in the Agency. The method can be
made to apply to any course whose objectives can be clearly specified
in terms of student behavior. Typewriting is a good example. Here the
behavior which the student is to be taught can be very explicitily des-
cribed. Courses in management, on the other hand, would probably be quite
hard to program. Here course objectives are usually described in terms
of individual growth toward increased self-awareness in dealings with other
people. In such cases course objectives vary with the student and cannot
be explicitly stated beforehand.

But there are some specific training tasks that programmed learning is par-
ticularly well suited to teach. It is well suited for teaching the inter-
pretation of charts, graphs, maps, tables, instruments, and models; it can
teach effectively the full range of language skills, both English and
foreign; it can teach such skills as teletyping, typewriting, operating
an IBM cardpunch, adding machine or calculator: it can teach accuracy of
observation and discrimination; and it can teach all sorts of verbal in-
formation.

Ten months ago President Eisenhower appointed eleven distinguished Ameri-
cans to a commission on national goals whose purpose was to "develop a
broad outline of coordinated national policies and programs for the next
decade and longer and...in the process (2) set up a series of goals in
various areas of national activity. In December of 1960 it completed its
study and submitted its report in a book entitled Goals for America. One
of the 15 chapters in the book is concerned with the national goals in
education. The author, Dr. John W. Gardner, who is President of the
Carnegie Corporation, points out that programmed learning "seems certain to
have an impressive impact on the teaching process" in the 1960's. In

particular, he recognizes the tremendous potential which self-teaching devices have for individualizing instruction.
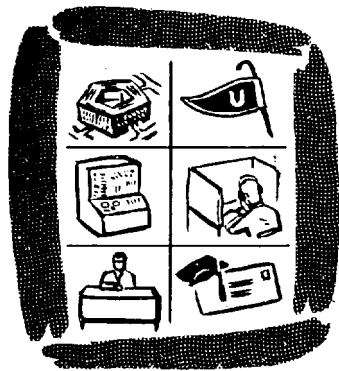
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25X1A9a NOTE: During 1960 ████████ was designated by the Office of Training to study developments in the field of programmed learning and to explain the likely application of this technique to the Agency's training efforts. He gave this presentation on programmed learning on 15 December 1960 to members and guests of the OTR Education Committee.

External PROGRAMS

The Agency may sponsor an employee's attendance at any of the programs summarized in this section of the <u>Bulletin</u> or at any other approved programs conducted at external facilities. An employee who is planning sponsored study at a Government facility or who is planning to utilize an Agency quota at a non-Government facility should not make any direct inquiries to the institution about its enrollment procedures; nor should a supervisor of the employee. He should call the Chief, External Training Branch, RS/TR, extension ███ who will make the necessary arrangements. However, if an employee plans to attend a full-time or part-time program at a non-Government facility, under Agency auspices, he may inquire about the program and, upon approval of sponsorship, will enroll directly. He is responsible for fulfilling all requirements for admission that are set by the institution.

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Any employee who attends at his own expense should make his own arrangements, governed by the Agency's security requirements.

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The Admissions and Information Branch, extension ████████ can provide details on the following programs and can also obtain information on other programs in which you may be interested. It maintains a collection of material on courses at domestic and foreign schools, other Government-conducted programs, and on those sponsored by private enterprise.

EXECUTIVE DEVELOPMENT PROGRAM - CORNELL UNIVERISTY

The Graduate School of Business and Public Administration, Cornell University, will hold its ninth annual Executive Development Program from 19 June through 28 July 1961. This six-week program is designed to aid executives in preparing themselves for the increasing complexity and broadening responsibility of top management. Professors of business administration meet with experienced executives from industry and government to explore management performance in the face of accelerating technological change and social demands.

During the six weeks sessions will be devoted to the following:

Determining Company Objectives for Maximum Competitve Advantage
Building Programs of Action to Attain Policy Objectives
Organizing to Accomplish Programmed Objectives
Increasing Executive Effectiveness
Adapting to a Changing Environment
Appraising Management's Broadening Responsibilities

In the morning sessions issues are introduced, analytical approaches
are developed, and policies appraised in a varity of problem and case
situations. Afternoon sessions are used to explore special facets
of the major topic under consideration. Throughout the program assign-
ments for each working day include carefully selected readings on im-
portant aspects of the subject under consideration and case situations
in which these concepts can be applied. At frequent intervals policy
problems are assigned that require an integration of evolving ideas and
concepts in a more comprehensive setting. This closely integrated struc-
ture of readings, cases, and problems demands intensive individual study,
formulation of personal views, and a defense of individual convictions
in small groups and in joint sessions.

Candidates for this program must have completed the Agency's Manage-
ment Course. Applications should be forwarded to the Registrar/TR,
through the appropriate Deputy Director, before 1 March 1961.

MANAGEMENT TRAINING - U. S. ARMY ORDNANCE CORPS

The U. S. Army's Ordnance Management Engineering Training Agency, lo-
cated at Rock Island, Illinois, offers a number of courses which are
open to employees of other Government agencies. The courses range
from three days to five weeks and classes meet eight hours each day.

The starting dates of classes offered during the remainder of fiscal
year 1961 are listed below. Information on coverage of the courses
and admission requirements is available in the Admissions and Informa-
tion Branch, RS/TR, 2003 Barton Hall, extensi█████   25X1A

Management Engineering Training Appreciation (3 days)
1 May

Top Management Seminar (2 weeks)
13 March
10 April
8 May
5 June

Middle Management Seminar (2 weeks)

    27 March
    17 April
     8 May
    22 May
    19 June

Seminar for Chiefs of Management Offices (2 weeks)

     8 May

Organization Planning (2 weeks)
    13 March
    17 April
    15 May
     5 June

Organization Planning Seminar (1 week)
     5 June

Procedures Analysis (2 weeks)

    20 March
    10 April
     1 May
    15 May
     5 June
    19 June

Procedures Analysis Seminar (1 week)
    26 June

Management Statistics (2 weeks)
    20 March
    17 April
    15 May
    12 June

Statistical Quality Control (3 weeks)
    24 April
    12 June

Advanced Statistical Quality Control (2 weeks)
     6 March
     1 May

Introduction to Operations Research (1 week)

> 3 April
> 22 May
> 19 June

Introduction to Design and Analysis of Experiments (3 weeks)
> 15 May

Mathematical Programming (3 weeks)
> 20 March

Introduction to Automatic Data Processing Systems (1 week)
> 6 March
> 27 March
> 17 April
> 22 May
> 12 June

Automatic Data Processing for the Systems Analyst (2 weeks)
> 13 March
> 24 April
> 19 June

Computer Programming (3 weeks)
> 3 April

ADP Seminar (1 week)
> 10 April
> 19 June

Work Planning and Control Appreciation (1 week)

> 3 April

Work Planning and Control (3 weeks)
> 13 March
> 24 April
> 5 June

Work Planning and Control Seminar (1 week)
> 5 June

Work Methods and Standards Appreciation (1 week)
> 10 April
> 22 May

Work Methods and Standards (5 weeks)
    6 March
    17 April
    29 May

Work Measurement Seminar (1 week)
    27 March

Value Analysis (1 week)
    8 May

Communications (1 week)
    8 May

Communication-System Design and Analysis (2 weeks)
    8 May

Supply Management (2 weeks)
    3 April
    12 June

Storage Management (2 weeks)

    17 April
    22 May

Cost and Incentive-type Contracts (1 week)
    6 March
    5 June

SYSTEMS RESEARCH INSTITUTE - IBM

The International Business Machine Corporation has recently opened
a Systems Research Institute in New York. It is perhaps the first
industry-sponsored graduate school which has been established to
educate people for advanced professional work in data processing
systems engineering.

The Corporation expects to spend about $2 million annually to
train some 400 people each year at the Institute. Thirty-five IBM
computer specialists from the United States, Great Britain, Germany,
and Canada reported for the opening classes.

PROFESSIONAL MEETINGS AND CONFERENCES

American Society of Photogrammetry, 19-25 March 1961, Washington, D. C.
  Executive: C. E. Palmer, 1515 Massachusetts Avenue, N. W., Washington

Society for International Development, Annual Conference, Wash-
  ington, D. C., April 1961. Mr. Marion Clawson, Executive Secretary,
  1145 19th St., N. W., Washington 6, D. C.

Institute of Radio Engineers, International Convention, New York,
  20-23 March 1961. E. K. Gannett, Institute Headquarters,
  1 East 79th St., New York 21, N. Y.

International Symposium "Microbial Reactions in Marine Environments,"
  Chicago, 20-24 April 1961. Dr. Carl H. Oppenheimer, Chairmen,
  Institute of Marine Science, University of Texas, Port Aransas,
  Texas.

International Academy of Pathology, Annual Meeting, Chicago, 22-29 April
  1961. Dr. F. K. Mostofi, Armed Forces Institute of Pathology,
  Washington 25, D. C.

Aerospace Medical Association, Annual Meeting, Chicago, 24-26 April
  1961. Dr. William J. Kennard, Secretary-Treasurer, c/o Washington
  National Airport, Washington 1, D. C.

American Power Conference and Exhibits, American Institute of Electri-
  cal Engineers and American Society of Mechanical Engineers, 23-27 March
  1961, Chicago, Illinois, Sherman Hotel.

Joint Spring Meeting, U. S. Nat. Committee, International Scientific
  and Radio Union, and Institute of Radio Engineers, Washington, D. C.,
  Georgetown University, 1-4 May 1961.

Western Joint Computer Conference and Exhibits, American Institute of
  Electrical Engineers and Institute of Radio Engineers, 9-11 May 1961,
  Los Angeles, Calif., Ambassador Hotel.

Global Communications Conference and Exhibits, 22-24 May 1961, Chicago,
  Ill., Sherman Hotel.

National Telemetering Conference and Exhibits, 22-24 May 1961, Chicago,
  Ill., Sheraton-Towers Hotel.

4th International Conference on Medical Electronics; 14th Conference
  on Electrical Techniques in Medicine and Biology, 16-21 July 1961,
  New York, N. Y., Waldorf-Astoria Hotel.

CREDIT AND FINANCIAL ANALYSIS - DUN AND BRADSTREET, INC.

The Business Education Division of Dun and Bradstreet, Inc., New York City, offers a correspondence course in Credit and Financial Analysis. The course consists of seventeen chapters, one of which arrives every two weeks over a period of 6½ months. Questions accompany thirteen of the chapters. Answers to these questions are graded and returned to the student with personal comments and a printed copy of suggested answers. There is no final examination, but students who answer the required questions acceptably receive a Certificate of Accomplishment.

The course covers:

> Basic Factors Affecting Credit Policies
> Types of Credit, Instruments of Credit
> Selling Terms
> Antecedent Information
> Forms of Business Organization
> Introduction to Financial Statements
> Examination of Financial Statements
> Accounting Procedures
> Introduction to Analysis
> Internal Analysis
> Comparative Analysis
> Working Capital Analysis
> Statement Analysis on Basis of Sales
> Sources of Information
> Summary of the Techniques and Application of Analysis
> Business Reorganizations, Bankruptcy
> Government Procurement Procedure

PROGRAMS IN OPERATIONS RESEARCH - CASE INSTITUTE OF TECHNOLOGY

During the month of June 1961, the Case Institute of Technology in Cleveland, Ohio will offer four, two-week programs in Operations Research. These programs are designed for persons having technical responsibility in operations research or allied fields and will provide up-to-date information on methods and techniques used.

Two programs will be offered concurrently. Those from 5 through 16 June are:

> Survey of Problems, Concepts and Methods of Operations Research
> Production and Inventory Control

PROGRAMS IN OPERATIONS RESEARCH - CASE INSTITUTE OF TECHNOLOGY (cont'd)

From 19 through 30 June:

Survey of Mathematical Techniques of Operations Research
Mathematical Programming

A participant may attend one of the programs from either schedule, or
he may attend two programs, one from each period. Prerequisite for
attendance is a degree in engineering or science, plus knowledge of
mathematics through differential equations and of introductory statis-
tics or probability.

EXECUTIVE DEVELOPMENT INSTITUTE FOR FEDERAL ADMINISTRATORS - UNIVERSITY

OF CHICAGO

The University of Chicago has made a preliminary announcement of its
fifth annual Summer Institute in Executive Development for Federal
Administrators. As in previous years, the Institute is designed to
broaden participants' understandings of individual behavior in organi-
zation and its relation to administrative decisions. The Institute
seeks to translate the theories and research findings of administra-
tive science into terms applicable to the participants' work and to
stimulate a re-evaluation of the responsibilities as federal executives.
To attain these goals, the University provides a nationally prominent
faculty and a body of provacative subject matter.

The 1961 Summer Institute program has been expanded and now comprises
two one-month seminars and eight two-week seminars. The increase
in the latter now affords several opportunities for attending the Hu-
man Relations and Organizational Structure Seminars, under different
leaders.

The two-week programs are:

3 July - 14 July	Organizational Decision-Making
3 July - 14 July	Human Relations and Administration
17 July - 28 July	Social-Psychology in Administration
17 July - 28 July	Organization Structure and Adminis- tration

The four-week programs are:

7 Aug - 18 Aug	Administrative Policy and Communica- tion
7 Aug - 18 Aug	Organization Structure and Adminis- tration

21 Aug - 1 Sept   Social Science and Ethics in Valida-
                           ting Decisions
21 Aug - 1 Sept   Human Relations and Administration

All seminars are conducted as concentrated residential programs on the
campus of the University. Faculty members--seminar leaders, special
activity directors, and lecturers--are drawn from departments of the
University, other major universities, the public service, business and
industry, and management consultant organizations. The core of each
program is the basic seminar content, the study of which requires almost
half of the participant's time. The remainder of each program is de-
voted to special projects, designed to sensitize participants to their
own administrative behavior, and to a number of selected lecture-dis-
cussion sessions. Those in the month-long programs have opportunities
for personal analysis and for special training in communication skills.
As a matter of interest, participants in the 1960 Institute represented
twenty-four different Government agencies, with the Dept. of Agricul-
ture, Dept. of the Air Force, Dept. of Interior, Dept. of Army, Atomic
Energy Commission and our own Agency sending the greatest number of
students.

Candidates from Agency components must be nominated for attendance by
their Deputy Director and must also have completed OTR's Management
Course. Schedules for the latter prior to July 1961 are listed for your
information, in the event nominees have not yet been afforded the pre-
requesite internal training:

GS 11-13 (40 hours)	GS-14 and above (40 hours)
24 Apr - 28 Apr	1 May - 12 May
5 Jun - 16 Jun	

Nominations should be forwarded through Training Officers to Deputy
Directors by 15 March. The Registrar/TR is responsible for register-
ing with the University the names of the final selectees. Those
selected for attendance will be registered at the University as Agency
employees.

FOREIGN SERVICE INSTITUTE - 1961

FSI's program of Introductory Area Training has been expanded, and the Institute is now offering intensive, three-week courses for Foreign Service Officers and officers from other Government agencies. (Reference: OTR Special Bulletin No. 42-60, dated 27 September 1960 an Expansion of Area Training at the Foreign Service Institute)

Foreign Area Analysis (one week)
20 Mar, 17 Apr, 19 Jun, 24 Jul, 14 Aug, 9 Oct

Regional Seminars (two weeks) (Eastern Europe, Latin America, Near East, Africa, South Asia, Souteast Asia, China, and Northeast Asia)
27 Mar, 24 Apr, 26 Jun, 31 Jul, 21 Aug, 16 Oct

Language Training - French, German, Spanish (16 weeks)

27 Mar	French, German, Spanish
24 Apr	French, Spanish
22 May	French, German, Spanish
19 Jun	French, Spanish
17 Jul	French, German, Spanish
14 Aug	French, Spanish
11 Sep	French, German, Spanish
9 Oct	French, Spanish
6 Nov	French, German, Spanish

Mid-career Course on Foreign Affairs (12 weeks)

3 Apr
3 Jul
2 Oct

International Labor Affairs Seminar (4 weeks)
11 Sep

ATTENTION: TRAINING OFFICERS

Copies of the Spring 1961 issue of Interagency Training Programs, published by the Civil Service Commission, have been forwarded by the Admissions and Information Branch to all Training Officers. If you have not received your copy, call ███████████ on extension ███████

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INSTITUTE OF INDUSTRIAL TRANSPORTATION AND TRAFFIC MANAGEMENT - AMERICAN UNIVERSITY

American University's School of Business Administration will conduct its thirteenth Institute of Industrial Transportation and Traffic Management from 6 through 23 March 1961. The purpose of the Institute is to increase the professional competence of present and prospective traffic executives. Major topics include:

>   Role of the Modern Traffic Manager
>   Traffic Management Problems and Procedures
>   Developments in Carrier Regulations
>   Government Agency Traffic Management

Several field trips are included in the course.

AUTOMATIC DATA PROCESSING COURSES

To keep Federal agencies informed about programs in Automatic Data Processing which are available to them, the Office of Management and Organization, Bureau of the Budget, periodically publishes a directory of Executive Orientation Courses in Automatic Data Processing. The directory lists courses offered by manufacturers of ADP equipment, by universities or associations, and by Federal agencies which are open to qualified applicants from other Federal agencies.

Three programs to be held in this area are described below:

>   Institute on Electronics in Management - The American University.
>   The School of Government and Public Administration will hold
>   its Eighth Institute on Electronics in Management from 30 Octo-
>   ber through 3 November 1961.

>   Seminar on Data Processing for Federal Executives - U. S. De-
>   partment of Agriculture. This seminar is for Federal executives
>   in grades GS-14 (or equivalent) and above. Topics to be dis-
>   cussed are history of automatic data processing, ADP systems
>   equipment, ADP systems programming, ADP systems analysis and
>   design, ADP systems implementation and operation, and the future
>   of information systems. Twelve two-hour sessions will be held
>   on Wednesdays and Fridays from 9:30-11:30 a.m., beginning on
>   8 March 1961.

>   Middle Management ADP Orientation - U. S. Civil Service Commis-
>   sion. The purpose of this orientation is to familiarize middle-
>   management employees of all agencies with the purposes, techniques,
>   interrelationships and problems of ADP applications. Enrollment

is limited to employees at grade GS-11 or above. A session
will be held in Washington, D. C., from 22-26 May 1961.

The Department of the Army will also conduct several courses in 1961.
Courses through June and the beginning dates are:

Introduction to Automatic Data Processing Systems (Rock Island,
Illinois) (1 week). Provides general orientation for personnel
directly associated with ADPS activities in the planning, de-
velopment, utilization, and evaluation of ADPS.

27 Mar	22 May
17 Apr	12 Jun

Automatic Data Processing for Systems Analysts (Rock Island,
Illinois) (2 weeks). Designed for personnel preparing for
and participating in feasibility and applications studies and
the design of a system consistent with the potentials of the
computer.

24 Apr	19 Jun

Automatic Data Processing Systems Analysis (Indianapolis, In-
diana) (3 weeks). Designed to train personnel in the principles
and techniques of conducting feasibility and applications studies.

1 May	5 Jun

Automatic Data Processing Systems Course for Staff Officers
(Fort Monmouth, New Jersey) (4 weeks). Trains personnel in
basic applications of ADPS so they are able to conduct or super-
vise feasibility studies in order to determine the practica-
bility of installing such systems.

3 Apr	15 May	26 Jun
1 May	29 May	

The ADP Directory is available for reference in the Admissions and In-
formation Branch, Registrar Staff, room 2003 Barton Hall.

AMA PUBLICATIONS AVAILABLE

As a result of the announcement in the December 1960 Bulletin on the
availability of publications by the American Managment Association,
the Registrar received requests for practically all of the books from
many different components of the Agency. Several requests came in for
certain books, but since we had only one copy of most of them, we could

AMA PUBLICATIONS AVAILABLE   (cont'd)

honor only a single request. We plan to continue this procedure of
announcing these publications as we can make them available to our
readers.

Books received since December are:

Market Research in International Operations: Tools, Techniques,
   and Organizational Approaches
The Challenge of Space Technology
Preparing the Annual Report
The Man in Management: A Personal View (Including a section
   on Executive Health Problems)
NOTE: We now have another copy of the 27 Feb 59 address by
   Dr. Charles H. Malik, President of the General Assembly of the
   United Nations on "Human Relations and the Industrial Order."

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Call ███████████ extension ███████ if you are interested in any 25X1A
of these publications.

INDUSTRY DEFENSE AND MOBILIZATION COURSES BEING OFFERED

Additional Staff College Courses in Industry Defense and Mobilization
have been scheduled in 1961 by the Office of Civil and Defense Mobili-
zation and will be conducted at the National Operational Headquarters in
Battle Creek, Michigan. These courses are sponsored by OCDM's Industry
Office which provides encouragement, information and technical guidance
to business, commerce and industry on methods of preparing for survial
and continuity of production following enemy attack or other major disas-
ter. They are open to industry defense coordinators, personnel directors,
safety directors, training directors, security supervisors, plant pro-
tection officers, State and city industrial defense coordinators, and
any other persons who have responsibility for emergency and disaster
control planning in industrial plants, institutions and other large
buildings and facilities.

Dates of courses are:

20 Mar - 24 Mar   12 Jun - 16 Jun
25 Sep - 29 Sep   13 Nov - 17 Nov

Military Reservist

ACTIVITIES

In any future national emergency it is anticipated that the majority of CIA's military reservists will be placed on active duty and used to partially fulfill the Agency's over-all military personnel requirements. It is essential, therefore, that training opportunities be provided which will enable reservists to maintain military proficiency and to obtain additional skills for performance of wartime duties.

Annual active-duty training **tours** constitute an important segment of the reserve training program. In an effort to inform reservists as well as their supervisors of available training opportunities, this Military Reservist Activities Section is included in the Bulletin.

Applications for active-duty training tours will continue to be submitted in accordance with established procedures. Additional information on programs for reservists may be obtained from the Mobilization and Reserve Branch, MMPD/OP, extens█████████Reservists are reminded that inasmuch as varying amounts of lead-time, with **four weeks** as a minimum, are required by the sponsoring Armed Services, MMPD should be consulted as early as possible before a course begins.

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All courses are fifteen days unless indicated otherwise.

DEPARTMENT OF ARMY

Course		Starting Date

Engineer School, Fort Belvoir, Virginia

5-A-C10	Engineer Co. Grade Officer Refresher	5 Jun
5-A-C11	Engineer Field Grade Officer Refresher	19 Jun
5-G-F2	Disaster Recovery	10 Apr, 5 Jun

DEPARTMENT OF ARMY   (cont'd)

Course	Starting Date
Chemical Corps School, Fort McClellan, Alabama	
3-A-C9 Chemical Officer Refresher	5 Jun
Artillery and Missile School, Fort Sill, Oklahoma	
6-A-C11 Field Grade Officer Refresher	12 Jun
Infantry School, Fort Benning, Georgia	
7-A-C6 Infantry Officer Refresher	3 Apr, 19 Jun
7-A-F20 Nuclear Wpn Employment	5 Jun
Ordnance School, Aberdeen Proving Grounds, Maryland	
9-A-F10 Senior Ord Off GM & Nuclear Wpns Log	10 Apr, 15 May
Ordnance GM School, Huntsville, Alabama	
9-G-F1 Ord GM Management Orientation	10 Apr, 24 Apr
9-G-F1 Ord GM Management Orientation	15 May, 5 Jun
Quartermaster School, Ft. Lee, Virginia	
10-A-C9 QM Officer Refresher	19 Jun
Signal School, Fort Monmouth, N. J.	
11-A-C9 Signal Officer Refresher	5 Jun
Finance School, Ft. Benjamin A. Harrison, Indiana	
14-A-C9 Finance Officer Refresher	22 May
Armor School, Fort Knox, Ky.	
17-A-C6 Armor Off Refresher	10 Apr, 8 May, 5 Jun
The Judge Advocate General's School, Charlottesville, Va.	
18-A-C9 Army Reserve JA Refresher	12 Jun
Command & General Staff College, Ft. Leavenworth, Kansas	
250-A-F2 Senior Off Nuclear Wpns Employment	22 May, 6 Jun

Course	Starting Date

The Provost Marshall General's School, Fort Gordon, Georgia

19-A-C9	Military Police Officer Refresher	18 Jul
19-I-F2	Physical Security	17 Apr
19-D-F9	US Army Missile Site Security	15 May
19-N-9322R/953.1R	Reserve Criminal Investigation	15 Aug

Air Defense School, Fort Bliss, Texas

44-A-F2   Senior Artillery Officer SAM (1 week, 5 days)
                                    10 Apr, 5 Jun, 19 Jun

Transportation School, Ft. Eustis, Virginia

55-A-C9	TC Off Ref	19 Jun
55-B-F7	Air Transportability Planning	3 May, 5 Jun

Defense Atomic Support Agency, Sandia Base, New Mexico

9-G-F20   Nuclear Wpns Employment Familiarization   10 Apr
                                                24 Apr, 15 May
Requirements for admission to this course are a grade of major
or above, a command or staff position, and the need for a gen-
eral knowledge of technical and logistical factors affecting
employment of atomic weapons. Applications should be submitted
in writing to Chief, MRB, with a statement of qualification and
need for the course. Those who have previously attended this
course in a civilian capacity will not be authorized to attend
as a Reserve Officer.

National Security Seminar (Formerly National Resources Conference)

Winston-Salem, N. C.	10 Apr
Wilmington, N. C.	3 May
Neward, N. J.	8 May

Second Army Area Intelligence School, Ft. Geo. Meade, Md.

Asso. Army Intell. Co. Officer Course, Year 1	11 July
Asso. Army Intell. Co. Officer Course, Year 2	9 July
Asso. Army Intell. Co. Officer Course, Year 3	18 June
Asso. Army Intell. Officer Adv. Course, Year 1	23 July
Asso. Army Intell. Officer Adv. Course, Year 2	16 July

All applicants must be AI officers. Adv. course applicants
must have completed the AI Asso. Co. Officer Course.

DEPARTMENT OF NAVY

Course	Starting Date

Air Intelligence

AI.4	Basic Radar Analysis, NAS, Norfolk, Va.	19 June
AI.5	Special Weapons, Naval Station, Wash., D. C.	15 May
AI.10	Advanced Air Intelligence, Naval Station, Wash., D. C.	3 Apr
AI.20	Air Intelligence, Naval Station, Wash., D. C.	19 Jun

Amphibious Warfare Indoctrination

S.I	Amphibious Base, Little Creek, Va.	Each Monday

Atomic, Biological, & Chemical Warfare

Phase I	Naval Base, Phila., Pa.	24 Apr, 22 May, 19 Jun
Phase II	Naval Base, Phila., Pa.	10 Apr, 8 May, 5 Jun

Electronics Supply

3105 Designators only, Great Lakes Naval Trg. Station	3 Apr

Industrial Relations Institute

For Naval Reserve Officers, Wash., D. C.	23 Apr, 6 May

Intelligence Refresher Trng, Naval Station, Wash., D. C.   12 Jun

Naval Attaché Course, Naval Station, Wash., D. C.   1 May, 26 Jun

Law Seminar, Great Lakes Naval Trg. Station   12 Jun

Operational Communications

C. I. General, Little Creek, Va.	3 Apr, 1 May, 5 Jun

Operational Intelligence

I.1	Basic, Little Creek, Va.	17 Apr, 5 Jun
I.2	Advanced, Little Creek, Va.	1 May, 19 Jun
I.3	Beach, Little Creek, Va.	3 Apr
I.4	Techniques, Little Creek, Va.	15 May

U. S. Naval Training Device Center

Port Washington, Long Island, N. Y.	14 May, 18 Jun

Course	Starting Date

Research Reserve Seminars

Office of Naval Research, Wash., D. C.	5 Jun
Current Developments, Great Lakes, Ill.	12 Jun

Seminar on Guided Missiles, Bureau of Weapons, Wash., D. C.	5 Jun

Weapons Research and Development

Naval Ordnance Laboratory, White Oak, Md.	1 May

U. S. MARINE CORPS

Professional Training
U. S. Marine Base, Quantico, Virginia

Reserve Senior Course, Ph. I	12 Jun, 3 Jul
Reserve Senior Course, Ph. II	12 Jun, 3 Jul
Reserve Junior Course, Ph. I	12 Jun, 17 Jul
Reserve Junior Course, Ph. II	12 Jun, 17 Jul

Amphibious Base, Little Creek, Virginia

LFTU-1 Amphibious Staff Plg. Gen	19 Jun, 7 Aug
LFTU-33 Amphibious Staff Plg. RLT Level	29 May, 10 Jul
LFTU-33 Amphibious Staff Plg. RLT Level	21 Aug

Occupational Training
U. S. Marine Base, Parris Island, S. C.

Admin Review & Naval Justice	4 Jun

* Transportation School, Ft. Eustis, Virginia

55-A-C9 Transportation Off Refresher	19 Jun

* Artillery & Missile School, Ft. Sill, Oklahoma

6-A-C11 Field Grade Off Refresher	12 Jun

* Engineer School, Ft. Belvoir, Virginia

5-A-C11 Engineer Field Grade Off Refresher	19 Jun
5-A-C10 Engineer Co Grade Off Refresher	5 Jun

U. S. MARINE CORPS (cont'd)

Course	Starting Date
* Armor School, Ft. Knox, Kentucky	
17-A-C8 Armor Off Refresher	10 Apr, 5 Jun
Naval Propellant Plant, Indian Head, Maryland	
Explosive Ordnance Disposal Refresher (2½ weeks)	Every Monday
U. S. Marine Base, Quantico, Virginia	
Communication Officers	7 Aug
* Signal School, Ft. Monmouth, New Jersey	
11-A-C9 Signal Off Refresher	4 Jun
* Chemical School, Ft. McClellan, Alabama	
3-A-C9 Chemical Off Refresher	5 Jun

* US Army courses open to Marine Corps officers

DEPARTMENT OF AIR FORCE

|	
Air Intelligence, Sheppard AFB, Texas	11 Apr, 6 Jun
Orientation Course, Warfare Systems School, Maxwell AFB, Alabama	10 Apr. 17 Apr

Reservists should not apply for this course until
18 months after attending the Squadron Officer Course,
Command & Staff School or Air War College.

National Security Seminar (formerly National Resources Conference)	
Winston-Salem, N. C.	10 Apr
Newark, N. J.	8 May
Wilmington, N. C.	8 May

Priority will be given to field grade officers whose
probable future assignments will be at the policy-making
level. Three years must have elapsed since attendance at
a previous Seminar before a reservist is eligible to attend
another one.
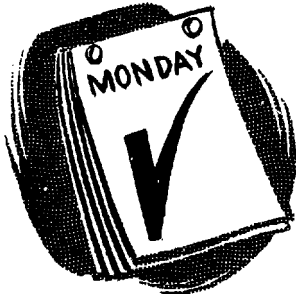
Registrar's

REMINDERS

Dates of all OTR courses for the next four months of 1961 are listed.
Any changes in those previously announced are identified with an asterisk.

Applications (Form 73, Request for Internal Training) are sent to the
the Registrar through Training Officers. The Training Officer will notify
the applicant of acceptance in a course.

Course	Close of Registration	Dates of Courses
Administrative Procedures (Full-Time-120 hrs)	6 Mar	13 Mar - 31 Mar 15 May - 2 Jun
25X1A6a ███████ (Indicate Phase)		
Budget and Finance Procedures (Full-Time-80 hrs)	Immediately	6 Mar - 17 Mar 22 May - 2 Jun
25X1A6a ███████		
CIA Review (Part-time-2 hrs) 117 Central	Register with TO	14 Mar, 11 Apr 9 May, 13 Jun
Clerical Refresher Program (Part-time-20 to 30 hrs) 508, 1016 16th Street Pre-test for Shorthand on the Thursday before beginning date of course. Hours for test: 0930 - 1100	13 Mar	20 Mar - 14 Apr 24 Apr - 19 May 29 May - 23 Jun
Anti-Communist Operations (Part-time-80 hrs) 0830 - 1230 2103 Alcott	1 May	8 May - 2 Jun

Course	Close of Registration	Dates of Courses
Communist Party Organization & Operations (Part-time-80 hrs) 0830 - 1230 2103 Alcott	Immediately 3 Apr 29 May	27 Feb - 24 Mar 10 Apr - 5 May 5 Jun - 30 Jun
Conference Techniques (Part-time-24 hrs) Mon, Wed 0930 - 1130 2027 R&S	17 Apr	24 Apr - 31 May
Dependents Briefing (Part-time-6 hrs) 117 Central	Register with TO	7 Mar - 8 Mar 4 Apr - 5 Apr 2 May - 3 May 6 Jun - 7 Jun
Effective Speaking (Part-time-24 hrs) Mon, Wed 0930 - 1130 2025 R&S	6 Mar	13 Mar - 19 Apr
Intelligence Orientation (Full-time-120 hrs) R&S Auditorium	Immediately 17 Apr 29 May	6 Mar - 24 Mar 24 Apr - 12 May 5 Jun - 23 Jun
Intelligence Research - Maps & Photo-reading (Part-time-45 hrs) M-W-F 0900 - 1200 2027 R&S	27 Feb	6 Mar - 7 Apr
Intelligence Research (Techniques) (Cancelled)		6 Mar - 31 Mar *
Intelligence Review (Part-time-35 hrs) 0900 - 1230 R&S Auditorium	27 Mar	3 Apr - 14 Apr
Operations Support (Full-time-200 hrs)	3 Apr 29 May	10 Apr - 12 May 5 Jun - 7 Jul

25X1A6a

Course	Close of Registration	Dates of Courses

Management
(Part-time-40 hrs)
0830 - 1230

25X1A6a ▮▮▮▮▮▮▮▮
GS 11-13

| | 17 Apr | 24 Apr - 28 Apr |
| | 29 May | 5 Jun - 16 Jun |

GS 14 and above · 24 Apr · 1 May - 12 May

Supervision
(Part-time-40 hrs)
0830 - 1230

25X1A6a ▮▮▮▮▮▮▮▮

GS 5-9	3 Apr	10 Apr - 21 Apr
GS 10 and above	Immediately	27 Feb - 10 Mar
	12 Jun	19 Jun - 30 Jun

Survey of Supervision and Management · 6 Mar · 13 Mar - 17 Mar
(Part-time-20 hrs)
0830 - 1230

25X1A6a ▮▮▮▮▮▮▮▮

Writing Workshops
(Part-time-27 hrs)
1st Wk: M-T-Th
Last 3 Wks: T&Th
0900 - 1200

Basic	27 Mar	3 Apr - 27 Apr
Intermediate	Immediately	6 Mar - 30 Mar *
	1 May	8 May - 1 Jun
Advanced (DD/S)	27 Mar	3 Apr - 27 Apr

Pretests for Interm and Advanced
Writing Workshops will be given: 20 Mar
(1330 hours, 1331 R&S) 24 Apr

USSR - Basic Country Survey · 13 Mar · 20 Mar - 5 May
(Part-time-60 hrs)
M-W-F
0830 - 1200
2241 R&S

Writing Workshops (DDS Special) · 10 Apr · 17 Apr - 11 May

OPERATIONS COURSES

Code			Close of Registration	Dates of Courses	
402	(Full-time)	240 hrs.	27 Feb	13 Mar - 21 Apr	
407	(Part-time)	60 hrs.	3 Apr	10 Apr - 28 Apr	*
			29 May	5 Jun - 23 Jun	
409	(Full-time)	80 hrs.	8 May	15 May - 26 May	
416	(Full-time)	160 hrs.	24 Apr	3 May - 27 May	*
417	(Full-time)	120 hrs.	Immediately	27 Feb - 17 Mar	
			27 Mar	3 Apr - 21 Apr	
			29 May	5 Jun - 23 Jun	
418	(Part-time)	4½ hrs. (afternoon)	12 Jun	14 Jun	
420	(Full & Part-time)	80 hrs.	24 Apr	1 May - 19 May	
425	(Full-time)	160 hrs.	3 Apr	17 Apr - 12 May	
427	(Part-time)	40 hrs. (afternoons)	24 Apr	1 May - 12 May	
428	(Full-time)	80 hrs.	27 Feb	6 Mar - 17 Mar	
			27 Mar	3 Apr - 14 Apr	
			29 May	5 Jun - 16 Jun	
429	(Part-time)	60 hrs.	1 May	8 May - 26 May	
436	(Full-time)	160 hrs.	6 Mar	3 Apr - 28 Apr	*
439	(Full-time)	160 hrs.	24 Apr	8 May - 2 Jun	
442	(Full-time)	80 hrs.	Immediately	20 Feb - 6 Mar	

LANGUAGE COURSES

Registration dates for intensive (full-time) study have been established well in advance of the starting dates of courses to ensure sufficient time for the Qualifications Review Panel to consider each application. The Panel's approval must be obtained before enrollment will be authorized.

Applications are sent to the Registrar through Training Officers. Students who intend to take one or more phases of a course must submit an application for each phase and may submit all applications when they first apply.

Full-time study includes reading, writing and speaking; part-time is as identified.

Course	Close of Registration	Dates of Course
Full-time		
Arabic (Basic) 1600 hrs. (Lebanese-Palestinian Dialect)	Immediately	20 Feb - 22 Dec
French (Basic) 800 hrs.	Immediately	27 Mar - 18 Aug
French (Intermediate) 400 hrs.	Immediately	27 Feb - 5 May
German (Basic) 800 hrs.	Immediately	27 Mar - 18 Aug
German (Intermediate) 400 hrs.	Immediately	20 Mar - 26 May
Persian (Basic) 960 hrs.	Immediately	13 Mar - 25 Aug
Spanish (Intermediate) 400 hrs.	Immediately	27 Feb - 5 May
Part-time		
Chinese (Basic) 120 hrs. RSW - Phase I Three 2-hour classes a week	13 Mar	27 Mar - 11 Aug
Chinese (Basic) 120 hrs. RSW - Phase II Three 2-hour classes a week	13 Mar	27 Mar - 11 Aug
Chinese (Basic) 120 hrs. Reading - Phase II Three 2-hour classes a week	13 Mar	27 Mar - 11 Aug
French (Basic) 100 hrs. RSW - Phase II Five 2-hour classes a week	20 Mar	3 Apr - 9 Jun

SECRET
CIA INTERNAL USE ONLY

Course	Close of Registration	Dates of Course

French (Basic) 60 hrs.
  RSW - Phase III
  Three 2-hour classes a week
	20 Mar	3 Apr - 9 Jun

French (Basic) 60 hrs.
  Reading
  Three 2-hour classes a week
	20 Mar	3 Apr - 9 Jun

German (Basic) 120 hrs.
  RSW - Phase I
  Three 2-hour classes a week
	13 Mar	27 Mar - 18 Aug

German (Basic) 120 hrs.
  RSW - Phase II
  Three 2-hour classes a week
	13 Mar	27 Mar - 18 Aug

German (Intermediate) 120 hrs.
  RSW - Phase II
  Three 2-hour classes a week
	13 Mar	27 Mar - 18 Aug

German (Basic) 60 hrs.
  Reading - Phase II
  Three 2-hour classes a week
	20 Mar	3 Apr - 9 Jun

Italian (Basic) 100 hrs.
  RSW - Phase II
  Five 2-hour classes a week
	20 Mar	3 Apr - 9 Jun

Italian (Basic) 60 hrs.
  RSW - Phase III
  Three 2-hour classes a week
	20 Mar	3 Apr - 9 Jun

Japanese (Basic) 120 hrs.
  RSW - Phase I
  Three 2-hour classes a week
	13 Mar	27 Mar - 11 Aug

Japanese (Basic) 120 hrs
  RSW - Phase II
  Three 2-hour classes a week
	13 Mar	27 Mar - 11 Aug

Japanese (Intermediate) 120 hrs.
  RSW - Phase I
  Three 2-hour classes a week
	13 Mar	27 Mar - 11 Aug

Romanian (Basic) 100 hrs.
  RSW - Phase II
  Five 2-hour classes a week
	20 Mar	3 Apr - 9 Jun

SECRET

Course	Close of Registration	Dates of Course

Romanian (Basic)   60 hrs.
  RSW - Phase III
  Three 2-hour classes a week
	20 Mar	3 Apr - 9 Jun

Romanian (Basic)   60 hrs.
  Reading
  Three 2-hour classes a week
	20 Mar	3 Apr - 9 Jun

Russian (Basic)   120 hrs.
  RSW - Phase II
  Three 2-hour classes a week
	27 Feb	13 Mar - 28 Jul

Russian (Basic)   120 hrs.
  RSW - Phase III
  Three 2-hour classes a week
	27 Feb	13 Mar - 28 Jul

Russian (Intermediate)   120 hrs.
  RSW - Phase II
  Three 2-hour classes a week
	27 Feb	13 Mar - 28 Jul
		(not previously scheduled)

Spanish (Basic)   100 hrs.
  RSW -   Phase II
  Five 2-hour classes a week
	20 Mar	3 Apr - 9 Jun

Spanish (Basic)   60 hrs.
  RSW - Phase III
  Three 2-hour classes a week
	20 Mar	3 Apr - 9 Jun

Spanish (Basic)   60 hrs.
  Reading
  Three 2-hour classes a week
	20 Mar	3 Apr - 9 Jun

FOREIGN STUDENTS

What courses are foreign students pursuing in the United States? Where do they come from? A sampling at one university--Cornell-- may give us some idea. Last year at 6.2 per cent, Cornell was third among American universities in percentage of foreign students to total enrollment. In number of foreign students, Cornell ranked tenth. This year, 7.3 percent of all Cornell students came from outside the United States: 791 from 81 countries. Of these,220 are undergraduates, 571 graduate students.

What are they studying? Agriculture has 263 undergraduate and graduate students. One hundred forty-three are in Arts and Sciences. Engineering has 129: 45 in Electrical Engineering, 34 in Civil Engineering, 26 in Mechanical Engineering, 9 in Chemical Engineering, 7 in Aeronautical Engineering, 5 in Engineering Physics, and 3 in Metallurgical Engineering. Business and Public Administration has 48, Architecture and Hotel Administration have 42 each; Industrial and Labor Relations, 36; Home Economics, 29; Nutrition, 6; Education, 27; Veterinary, 14; Law, 7.

Where are they from? The Far East leads with 278, followed by Europe, with 151; Latin America, 96; Africa, 56 (an increase from 39 last year); the Near and Middle East, 54. Incia leads all other countries with 111, followed by Canada with 104; China, 43; the Philippines, 34; England, 31; Thailand, 21; and so on.

Last year 30 persons from abroad were on the Faculty, including visiting professors and research associates. Forty-nine faculty members went overseas to teach and conduct research.

Foreign students are active in intercollegiate athletics, too. A "former resident" of Budapest was a star place-kicker on this year's freshman football squad. An Englishman from Dersingham was presented the Robert F. Patterson '25 Award for the Senior "who, like Patterson, played the big man's game (varsity football) despite physical deficiencies." (This young fellow played fullback at 5 feet 8, 160 pounds!) Outstanding members of the varsity soccer team included players from Kenya, Thailand, the Philippines, Ecuador, and Peru. The high scorer on the polo team hails from Columbia! The "most valuable" freshman cross-country man was a very promising young distance runner from Kisii, East Africa.

(Reprint, Cornell Alumni News)

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OPERATIONS COURSES   (cont'd)

Course	Close of Registration	Dates of Courses
Information Reports Familiarization (Part-time 40 hrs-afternoons)	24 Apr	1 May - 12 May

25X1A6a

███████ elligence and administrative assistants who are being considered for assignment as jr. reports officers or who have field assignments involving final CS-type and cable information reports. The official format of each type of information report is studied, and students prepare cables and CS-type reports during laboratory practice.

Information Reporting, Reports, and Requirements (Full-time 120 hrs)	Immediately	27 Feb - 17 Mar
	27 Mar	3 Apr - 21 Apr
	29 May	5 Jun - 23 Jun

25X1A6a

For Clandestine Services personnel whose responsibilities are directly associated with reporting of intelligence and operations information. Practical exercises cover the entire cycle of reporting--general requirements, collection of information, making an operations report, writing a raw information report, and putting the report into finished form.

Operations Familiarization (Full-time 240 hrs)	27 Feb	13 Mar - 21 Apr

25X1A6a

For Clandestine Services personnel and non-CS officers whose responsibilities in support of operations require familiarization with case officer functions. Course gives students a basic understanding of the fundamentals of clandestine operations and a familiarization with basic techniques and methods of operation used by the case-officer to accomplish his mission.

Operations Planning and Management (Full-time 160 hrs)	24 Apr	8 May - 2 Jun

25X1A6a

For CS personnel only, this course provides training in depth in case-officer functions adequate for Hqs or field personnel who are assigned to non-agent handling positions, or those assigned to staff positions where knowledge of certain of these functions is essential to discharge support responsibilities.